

52. Notes on two new *Hypotrichous Ciliates* from the Soil.

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This is the only record of two new hypotrichous ciliates which were found associated with several species of protozoa in cultures of soils from the experiment farm at Nishigahara near Tokyo. As culture media 2% timothy-hay infusion was chiefly employed.

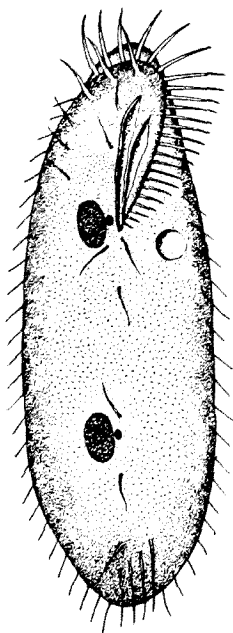
Oxytricha bimembranata, sp. nov.

(Text-fig. 1.)

At first sight the species in question appears to be most closely related to *Oxytricha fallax* recorded by STEIN. The body, being of great elasticity and flexibility, is almost elongate-elliptical, a little narrower in front than behind, rather oblique on the anterior left-hand and posterior right-hand borders, slightly convex on the dorsal and flat on the ventral surface. It is nearly three times as long as broad at the middle and measures 150–200 μ in length.

Not only is the present species provided with the peristome which occupies about the anterior third of the body but it is also characterized by the presence of endoral and paraoral membranes which curve slightly to the left in front. In these respects it stands at variance with *O. fallax*.

Further, some peculiarity lies in the arrangement of cirri on the ventral surface. The frontal cirri are eight in all, of which six are arranged along the border, the rest occur near the paraoral membrane. Of the former six the anterior three are prominently developed. The ventral cirri present in two groups, one comprising three cirri arranged in a triangle just behind the peristome and the other consisting of two cirri placed on the median line far behind the centre of the body.



Text-fig. 1. *Oxytricha bimembranata*, sp. nov.

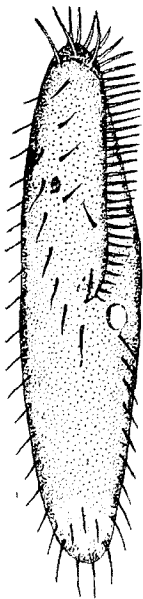
From the posterior region are given off five well-developed cirri, four of which are arranged in an oblique row from the left to the right and project beyond the posterior edge of the body. The marginal cirri are almost uniformly developed and generally interrupted at the posterior extremity.

The macronucleus is composed of two ellipsoidal masses. Associated with each is found the micronucleus. The contractile vacuole is of a spherical shape and lies near the hind end of the peristome, on the left-hand side of the body.

Gonostomum andoi, sp. nov.

(Text-fig. 2.)

The present species looks externally very much like *Gonostomum affine* (STEIN), known to be fairly wide distribution. The body, which has a very flexible consistency, is elongate-lanceolate, equally rounded at both extremities, a little more convex on the left-hand than on the right-hand border, and dorso-ventrally flattened. It is about four times as long as broad at the middle and measures about 100μ in length.



Text-fig. 2. *Gonostomum andoi*, sp. nov.

The peristome extends nearly to the middle of the body, much as in *G. affine*. The adoral zone of membranelles runs back almost parallel to the axis of the body for the greater part of its length and makes an abrupt bend inwards at its posterior end. The undulating membrane is very inconspicuous and appears to be confined merely to near the hind end of the peristome.

This species, at variance with *G. affine*, is furnished on the ventral surface with eight frontal cirri of which the anterior three are longer and thicker than the rest, seven ventral cirri arranged in an oblique row from the right to the left, three anal cirri inconspicuous and disposed in a triangle, and marginal cirri uninterrupted and longer at the posterior extremity.

The macronucleus consists of two ovoid masses which are scarcely discernible in the natural state. Placed near the centre of the body, on the left-hand side, is the contractile vacuole which is almost spherical in shape.